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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,708	06/12/2006	Fumio Takeshima	025416-00031	7573
4372	7590	03/12/2009		
ARENT FOX LLP 1050 CONNECTICUT AVENUE, N.W. SUITE 400 WASHINGTON, DC 20036				
EXAMINER				
CHANG, CHING				
ART UNIT		PAPER NUMBER		
3748				
NOTIFICATION DATE		DELIVERY MODE		
03/12/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DCIPDocket@arentfox.com  
IPMatters@arentfox.com  
Patent\_Mail@arentfox.com

**Office Action Summary****Application No.**

10/582,708

**Applicant(s)**

TAKESHIMA ET AL.

**Examiner**

CHING CHANG

**Art Unit**

3748

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 8-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-10 is/are allowed.
- 6) ☒ Claim(s) 11-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date: \_\_\_\_\_

### DETAILED ACTION

This Office Action is in response to the Response to the Office Action after Final filed on 3/2/09. Claims 1-7, and 14 are cancelled as requested.

In view of a new non-final rejection being set forth below, the final rejection mailed on 11/28/08 is hereby withdrawn.

#### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. ***Claims 11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahara et al. (US Patent 5,127,253) in view of Ito et al. (US Patent 5,081,858).***

Takahara discloses a method (See Figs. 1-15) of manufacturing a shaft (10; 110) for an engine component, comprising the steps of: axially pressing an end of a blank to draw said blank into a workpiece having a plurality of diameters (12, 13, 14, 11, 15; 111, 117, 112, 114, 115, 116) axially pressing said end of the workpiece, and fixing an opposite end of the workpiece to expand a portion thereof radially outwardly into an annular expanded portion (See Fig. 10); and axially pressing said annular expanded portion into a flange (13; 112) while drawing the workpiece into a workpiece having a plurality of diameters; further comprising the step of: forming a cut surface on a side of said workpiece by shearing.

Takahara has indicated that the aforementioned method is used to manufacture engine components, accordingly, it would have been obvious to one having ordinary skill, that the Takahara method would be applied to make a shaft for an engine camshaft as well.

Takahara discloses the invention as recited above, however, fails to disclose a powdery lubricant being applied to cold forging the shaft.

The patent to Ito on the other hand, teaches that it is conventional in the cold forging art, to have utilized a powdery lubricant during a cold forging process.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have applied the powdery lubricant as taught by Ito, in a cold forging process to make the shaft for the Takahara method, since the use thereof would provide a good quality and low cost camshaft.

3. ***Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takahara in view of Ito et al. (as applied to claim 11 above), and further in view of Sudoh et al. (US Patent 4,553,416) or Matsumoto (JP '173).***

The modified Takahara method, however, fails to disclose said powdery lubricant comprising lime or borax.

The patent to Sudoh or Matsumoto on the other hand, teaches that it is conventional in the cold working process art, to have utilized a powdery lubricant comprising lime or borax.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have applied the powdery lubricant comprising lime or borax, as

taught by Sudoh or Matsumoto, in the cold forging process to make the shaft for the modified Takahara method, since the use thereof would provide a good quality and low cost camshaft.

***Allowable Subject Matter***

4. Claims 8-10 are allowed.

***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHING CHANG whose telephone number is (571)272-4857. The examiner can normally be reached on M-Th, 7:00 AM -5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion can be reached on (571)272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Ching Chang/  
Primary Examiner, Art Unit 3748